

**Before the  
Federal Communications Commission  
Washington, DC 20554**

<b>In the Matter of</b>	)	
<b>Implementing a Nationwide,</b>	)	<b>WT Docket No. 06-150</b>
<b>Broadband, Interoperable Public</b>	)	
<b>Safety Network in the 700 MHz</b>	)	<b>PS Docket No. 06-229</b>
<b>Band</b>	)	

To: Public Safety and Homeland Security Bureau

**COMMENTS OF THE STATE OF NEW MEXICO**

The State of New Mexico ("SONM") hereby submits the following in response to the Commission's March 17, 2010 Public Notice (DA10-458) in which the Public Safety and Homeland Security Bureau (Bureau) requests comments on the National Public-Safety Telecommunications Council (NPSTC) Broadband Task Force (BBTF) and Public Safety Spectrum Trust (PSST) technical recommendations for 700 MHz public safety broadband deployments. As a waiver applicant seeking authority to provide interoperable public safety broadband service statewide in New Mexico on the 700 MHz national public safety broadband spectrum, SONM urges the Commission to adopt the technical framework established in the BBTF Report and to grant expeditiously SONM's waiver request.

**THE NEW MEXICO PLAN**

SONM is committing significant resources towards deploying a statewide 700 MHz public safety broadband network. While New Mexico is the sixth largest state in

land masse, it is overwhelmingly rural, with an average population density of 16 persons per square mile. Because the State is so rural, commercial providers face significant economic challenges in deploying service there. In fact, 99% of the population of the entire United States could be covered without a single site in New Mexico being deployed. Without the State's direct involvement in the buildout of a 700 MHz public safety broadband network, it is likely that many parts of New Mexico will be among the last in the nation to be covered, or may never be covered at all. Accordingly, SONM filed a waiver petition with the Bureau seeking authority to deploy 700 MHz public safety broadband service.

Upon grant of the requested waiver, SONM intends to build and operate the New Mexico portion of what eventually will be the nationwide 700 MHz public safety broadband network. Accordingly, SONM will utilize LTE technology, which has been adopted by both NPSTC and the PSST as the technology of choice for the national network.

In building out the network, the State will leverage existing assets as much as possible. Currently, the State operates a State-owned 99-tower microwave and fiber optic public safety communications network that serves as a backbone for public safety and government communications. This system, which has been in operation for more than half a century, is currently undergoing an analog-to-digital upgrade that is 70% completed. This network of 99 towers will serve as base station locations and points of access for the 700-MHz broadband deployment. Once the digital upgrade of the microwave backbone is completed, with the throughput being expanded to 155 Mb statewide, the network will be utilized to backhaul the 700 MHz broadband traffic.

SONM plans to use public funds and to partner with a private sector entity or entities to assist in the buildout and deployment of this spectrum. SONM submitted a Round 2 BTOP grant application to NTIA seeking \$38.7 million in grant funding, with a \$17 million state-funded match, that will pay for completing the digital upgrade of the statewide microwave backbone as well the initial deployment of 700 MHz public safety broadband service in Santa Fe and Albuquerque. Recently, the New Mexico legislature re-appropriated \$4.8 million to the SONM Department of Information Technology in furtherance of these goals. The total cash contribution from SONM for the BTOP grant project is \$5.4 million. SONM will partner with commercial entities to the extent permitted under New Mexico law and the FCC's rules, as needed to further the buildout of the planned 700 MHz broadband network.

#### **NEW MEXICO SUPPORTS THE BBTF RECOMMENDATIONS AS A FRAMEWORK FOR GRANTING THE WAIVER PETITIONS**

In the world of public safety communications, one size does not fit all; what is needed in large urban areas such as the National Capital Region or New York City is not the same in all respects as what is needed in vast rural areas such as New Mexico. Accordingly, the critical concern for ensuring a successful nationwide 700 MHz public safety broadband deployment, apart from funding, is to establish a framework for providing interoperability on a nationwide basis, including roaming and priority service, while allowing maximum flexibility to local and regional operators to address their own particular needs and concerns. The BBTF Report meets this concern, providing a sensible architecture and framework for moving forward with 700 MHz broadband deployment on a regional and/or state-by-state basis.

The BBTF undertook a comprehensive and thorough effort, with broad participation and input not only by public safety themselves, but also from the manufacturers, the vendor community, engineering firms, the communications bar, and the National Institute of Standards and Technology (NIST). The goal of the effort was to develop a set of recommendations that would facilitate early deployments on a regional and/or state-by-state basis while still protecting the viability of a national network. The final report meets that goal.

SONM believes that the BBTF Report's recommendations provide adequate architectural details, specificity, consistency and precision for immediately moving forward with the waivers. Additionally, the BBTF Report's recommendations serve as an appropriate foundation for the work of the Emergency Response Interoperability Center (ERIC). New Mexico urges the FCC, through ERIC, to work with NIST as well as the public safety, manufacturing and vendor communities to ensure that meeting these technical requirements is and remains both practical and economically feasible, and that they are receiving full support and adoption by the manufacturers and in the developing LTE standard.

The FCC should condition waiver disposition on general adherence to the standards recommended in the BBTF. Adherence to the standards will increase the likelihood of future compatibility and interoperability among public safety networks. While the BBTF report provides adequate detail to serve as a basis for conditions on waivers, continued technical input and built-in flexibility is required to keep pace with developing technology and user needs. With regular review and update, the recommendations should provide a basis for technological evolution. Moving forward

with the formation of an advisory panel made up of the early builders will help to ensure that the needs and experiences of the user community are considered and taken into account as the nationwide network grows.

BBTF recommendation 6.2 (Operations), “Requirements at Startup”, is a goal for new system capabilities but may not be attainable immediately due to budgetary, contractual or manpower limitations. New systems may be required to be upgradeable to these specifications. Requirement at startup may be impractical. Minimum applications may be required over a period of time as interoperability expands and procedures are formalized. Applicants should not be required to provide unnecessary applications. A standard for minimum security features should be strictly specified and enforced.

Whatever technical issues might remain should be worked out with system testing and in a real world environment based on operational experiences. SONM agrees with the PSST that the early buildout “systems present an opportunity to gain information, practical experience, and infrastructure that can be leveraged for the nationwide network.” (December 15, 2009 letter from Chief Harlan R. McEwen to Chairman Julius Genachowski.). The experience of the early build out systems will be invaluable to the development of the nationwide public safety broadband network and this opportunity should not be delayed.

Accordingly, New Mexico urges the Commission to grant its waiver request without further delay. The need for immediate action is particularly urgent insofar as SONM’s Round 2 BTOP grant request could be adversely impacted by any delay in granting the waiver.

## CONCLUSION

In view of the foregoing, SONM requests that the Commission grant a waiver of the 700 MHz rules to allow for the early construction and deployment of an interoperable 700 MHz public safety system in the State of New Mexico.

Respectfully Submitted,

STATE OF NEW MEXICO  
OFFICE OF THE GOVERNOR

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